ABSTRACT OF THE DISCLOSURE

Prior to converting a non-single crystal material of a semiconductor film into a single crystal material through the use of a laser beam, at least one dopant is introduced into whole of the semiconductor film. Then, the non-single crystal semiconductor film is irradiated with a laser beam to crystallize the semiconductor film. In this case, a ratio between quasi-fermi level of the single crystal material within one of transistor formation regions used to form transistors of different conductivity types and quasi-fermi level of the single crystal material within the other thereof is made to be between 0.5 : 1 and 2.0 : 1. Thus, transistors of different conductivity types are formed in the crystallized semiconductor film.